

In the Claims

We claim:

1. An isolation gasket material comprising a crosslinked polyolefin foam having a density of from about 60 kg/m³ to about 200 kg/m³, a compressive strength of from about 1/5 kg/cm² to about 8 kg/cm², a shear strength of at least 2 mm, and a thickness of at least 0.5 mm.

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2. The isolation gasket of claim 1 wherein the crosslinked polyolefin foam is comprised of ethylene propylene copolymer and linear low density polyethylene.

3. The isolation gasket of claim 2 wherein the ethylene propylene copolymer content is from about 50% to about 90%, by weight.

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4. The isolation gasket of claim 2 wherein the ethylene propylene copolymer content is at least 20%, by weight.

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5. The isolation gasket of claim 1 having a thickness of from about 0.8 mm to about 1.2 mm.

6. The isolation gasket of claim 1 having a fine cell structure with cells ranging from about 0.2 mm to about 1.0 mm.

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7. The isolation gasket of claim 1 having a density of from about 100 kg/m³ to about 125 kg/m³.

8. The isolation gasket of claim 1 having a compressive strength of about 6 kg/cm².

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9. The isolation gasket of claim 1 having a shear strength of at least 3 mm.

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10. The isolation gasket of claim 2 having a degree of polymer crosslinking of from about 20 %, by weight, to about 65 %, by weight.

11. The isolation gasket of claim 10 having about 40 %, by weight, polymer crosslinking.

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12. A method of manufacturing a crosslinked polyolefin isolation gasket comprising:
mixing a resin mixture comprising polyolefin resins into a homogeneous mixture;
extruding the homogeneous mixture into a web having a thickness of from about 0.2 to about 3 mm;

15 cooling the web;

crosslinking the polymers in the web together to form a continuous polymer web;
heating the continuous polymer web to form a low-density, crosslinked polyolefin foam.

13. The method of claim 12, wherein the resin mixture further comprises foaming agents and/or
20 crosslinking agents.

14. The method claim 12 wherein the continuous polymer web has a degree of crosslinking of less than about 75 %.

25 15. An isolation gasket material made in accordance with claim 14.